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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/732,737	12/10/2003	Frank Joseph Feuerborn	GTRC-217	6676
26875 7590 09/11/2007 WOOD, HERRON & EVANS, LLP 2700 CAREW TOWER 441 VINE STREET CINCINNATI, OH 45202			EXAMINER CHARLES, MARCUS	
			ART UNIT 3682	PAPER NUMBER
			MAIL DATE 09/11/2007	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/732,737	<b>Applicant(s)</b> FEUERBORN, FRANK JOSEPH	
	<b>Examiner</b> Marcus Charles	<b>Art Unit</b> 3682	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 21 May 2007.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-3 and 5 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3 and 5 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### DETAILED ACTION

This action is responsive to the after final amendment filed 2/26/2007 and Appeal brief filed 5-21-2007.

1. The after final amendment filed 2/26/2007 has been entered as required by MPEP 1207.4
2. In view of the appeal brief filed on 05-21-2007, PROSECUTION IS HEREBY REOPENED. A new office action set forth below.

To avoid abandonment of the application, appellant must exercise one of the following two options:

(1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,

(2) initiate a new appeal by filing a notice of appeal under 37 CFR 41.31 followed by an appeal brief under 37 CFR 41.37. The previously paid notice of appeal fee and appeal brief fee can be applied to the new appeal. If, however, the appeal fees set forth in 37 CFR 41.20 have been increased since they were previously paid, then appellant must pay the difference between the increased fees and the amount previously paid.

A Supervisory Patent Examiner (SPE) has approved of reopening prosecution by signing below:

A handwritten signature in black ink, appearing to read 'Richard Ridley', with a stylized, cursive script.

RICHARD RIDLEY  
SUPERVISORY PATENT EXAMINER

***Claim Objections***

3. Claim 1 is objected to because of the following informalities: The status identifier in claim 1 filed 2/26/2007 is not proper because the current claim 1 was not previously presented in its present form. In addition, there is no underlining of the newly added section of the claim. Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

5. Claims 1-3 and 5 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter, which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. Specification fails to clearly disclose the standard for the K-section v-belt. One of ordinary skill in the art at the time of the invention would not be able to clearly decide on the standard for any k-section v belt for the foreseeable future because the standard changes as time passes. Therefore the standard for today (the time the invention was made) will not be the same for the next twenty years.

***Claim Rejections - 35 USC § 112***

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

7. Claims 1-3 and 5 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In claim 1, the claim recited a standard for a K-section v-belt. However, it is not clear as to what actual standard is the claim referring to. Standards changes as time passes by and it is important that the actual standards be clearly specify in the specification and including the actual dimensions of that actual standard. In addition, it is not clear as to what is the actual standard for a k-belt type, since the dimension of the standards changes according to the size of the belt.

***Claim Rejections - 35 USC § 103***

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 1-2 as understood, are rejected under 35 U.S.C. 103(a) as being unpatentable over Hitchcock et al. in view of EP (0346676). Hitchcock et al. discloses a multiple rib V-belt comprising a belt body (12') formed in a continuous loop (fig. 1); a plurality of v-shaped grooves (48) formed in the belt body and spaced apart to define a plurality of circumferentially extending ribs (46). It is apparent that the belt body is formed to standard dimension for a given pulley having an overall thickness and groove depth. Hitchcock et al. also teaches reducing the depth of the groove from a standard dimension by reducing the tip (46) to a flat surface (54) in order to prevent cracks due to backward bending (col. 4). Hitchcock et al. fails to disclose the depth of the groove is

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approximately 0.070 inch and the belt has an overall thickness of approximately 0.145 to approximately 0.155 inch. EP (0346676) discloses a poly-v belt having a groove depth of 1.6 mm, which is equivalent to 0.062 inch and a thickness of 3.6, which is equivalent to 0.147 inch. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the belt of Hitchcock et al. to include the dimensions of EP (0346676) in order to reduce friction and reduce compressive stresses in the lower part and to increase the life span of the belt.

In claim 2, note Hitchcock et al. disclose the tips (46) are truncated (col. 4, lines 20-65).

10. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hitchcock et al. In claims 3-4, Hitchcock et al. disclose the claimed invention including the groove depth is reduced by 0.78 mm (note original groove depth is 3.45mm and the depth after reduction is 2.54 mm). Hitchcock et al do not disclose the approximate amount by which the groove depth is reduced is 0.015 inch. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the groove height and the thickness of Hitchcock et al. so that they fall within the required height and thickness, since it has been held that where the general condition of the claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. In re Aller, 105 USPQ 233. In addition, the required height and depth are subject to and related to a particular pulley groove and the application thereof.


11. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hitchcock et al. in view of EP (0346676). as applied to claim 1 above, and further in view of Hull.

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Hitchcock et al. does not disclose the belt is defined by cogs along the ribs. It is well known in the art for a belt to be defined by cogs along the length of the ribs in order to increase flexibility when the belt is wrapped around the pulley. Hull clearly discloses a belt having a plurality of longitudinally extended ribs (25) and each rib defined by spaced cogs (28) along the longitudinal length in order to improve belt life. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to further modify the belt of Hitchcock et al. so as to include cogs in view of Hull to increase flexibility when the belt is wrapped around the pulley, improve belt life and prevent cracking.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marcus Charles whose telephone number is (571) 272-7101. The examiner can normally be reached on Monday-Thursday 7:30 am to 6:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ridley Richard can be reached on (571) 272-6917. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

  
Marcus Charles  
Primary Examiner  
Art Unit 3682  
August 31, 2007